

REMARKS

The Examiner is respectfully requested to enter this Reply After Final in that it raises no new issues. Alternatively, the Examiner is respectfully requested to enter this Reply After Final in that it places the application in better form for Appeal.

Status of the Claims

Claims 1-8 are currently pending in the above identified application. No claims have been canceled or added. Claim 1 has been amended to incorporate the subject matter of claim 6. Claim 7 has also been amended to further define the primary and secondary curing. Support for the amendments to claim 7 is found in Table 2 at page 9. No new matter has been added by the above claim amendments.

Election

The Examiner withdrew claim 8 from consideration stating that the subject matter of claim 8 is directed to an independent invention and that Applicants constructively elected claims 1-7. Applicants traverse the Examiner's election and respectfully request that the claims be reunited.

Applicants submit that under the PCT standard of unity of invention, claim 8 is sufficiently linked to claims 1-7 by a special technical feature, namely the curing composition of a fluororubber. Claim 1 is directed to the composition, claim 5 is directed to a

molded article made from the that composition and claim 8 is directed to a method of producing the molded article. As such, claim 8 should be reunited and examined with claims 1-7.

Rejection under 35 USC §112, second paragraph

The Examiner rejects claims 6 and 7 as indefinite because the primary and secondary curing steps are not properly defined. Applicants traverse the rejection and respectfully request the withdrawal thereof.

Applicants amend the claims to properly define the conditions of the primary and secondary curing. In the primary curing step, a crosslinking reaction of the rubber proceeds to form a three-dimensional network of the rubber, while the secondary curing completes the crosslinking reaction and liberates the reaction residues outside the system. As such, the rejection should be withdrawn.

Rejection under 35 USC §102(b) or alternatively §103(a)

The Examiner rejects claims 1-7 as anticipated by or obvious over WO 95/15995 (WO '995), Tatemoto et al. USP 4,530,972 (Tatemoto '972) or Albano et al. USP 5,948,868 (Albano '868). Applicants traverse the rejection and respectfully request the withdrawal thereof.

WO '995 discloses the use of t-butyl cumyl peroxide and dicumyl peroxide in the compositions of WO '995. WO '995 fails to disclose a primary and secondary curing step at the recited specifications of the claimed invention.

Tatemoto '972 discloses the use of di-t-butylperoxide, t-butylcumyl-peroxide and dicumylperoxide with the preferable amount of 0.5 pbw in the compositions of Takemoto. Tatemoto '972 fails to disclose a primary and secondary curing step at the recited specifications of the claimed invention.

Albano '686 discloses curing with d-t-butylperoxide, and dicumylperoxide in the amount of 0.5% and preferably 1% by weight in the compositions of Albano. Albano '686 fails to disclose a primary and secondary curing step at the recited specifications of the claimed invention.

Applicants submit that none of the cited references disclose or suggest each and every element of the claimed invention. As such, the Examiner has failed to make a *prima facie* case of obviousness pursuant to MPEP 2143 and 2143.01 and *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) and *In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir 1998).

A *prima facie* case of obviousness is established when there is some suggestion or motivation to modify the reference to arrive at the present invention. Within the motivation to modify the reference there must be a reasonable expectation of success within

the reference's suggestion to modify. The Examiner's rejection fails to point to a clear teaching or suggestion to modify any of the references to arrive at the present invention. In the absence of such a teaching, the rejection must be withdrawn.

Conclusion

As Applicants have addressed and overcome all rejections in the Office Action, Applicants respectfully request that the rejections be withdrawn, claim 8 be reunited and that all the claims be allowed.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Kecia J. Reynolds (Reg. No. 47,021) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.

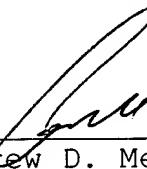
Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a three (3) month extension of time for filing a reply in connection with the present application, and the required fee of \$920.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees

required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By 

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Attachment: Version with Markings to Show Changes Made

(Rev. 02/20/02)

VERSION WITH MARKINGS TO SHOW CHANGES MADEIN THE CLAIMS:

Please cancel claim 6 without prejudice to or disclaimer of the subject matter contained therein.

Please amend the claims as follows:

1. (Twice amended) A curing composition of a fluororubber comprising

100 parts by weight of a fluororubber which is curable with an organic peroxide

0.1 to 10 parts by weight of a polyfunctional unsaturated compound, and

0.3 to 1.2 parts by weight of a organic peroxide selected from the group consisting of dicumyl peroxide, tert.-butylcumyl peroxide and di-tert.-butyl peroxide,

wherein the total amount of acetone and tert.-butanol contained in the decomposed products of one mole of said organic peroxide, which are generated at a curing temperature, is 2 moles or less, and wherein the contribution of secondary curing to a compression set defined by the following formula is 30 % or less:

$$\underline{((CS_1 - CS_2)/CS_2) \times 100\%}$$

in which CS₁ is the compression set of a product from primary curing for 10 minutes at 160°C and CS₂ is the compression set of a product from secondary curing for 4 hours at 180°C.

5. (Amended) A molded article of a fluororubber comprising a cured material of a curing composition [as claimed in claim 1] wherein the composition comprises 100 parts by weight of a fluororubber which is curable with an organic peroxide 0.1 to 10 parts by weight of a polyfunctional unsaturated compound, and

0.3 to 1.2 parts by weight of a organic peroxide selected from the group consisting of dicumyl peroxide, tert.-butylcumyl peroxide and di-tert.-butyl peroxide, wherein the total amount of acetone and tert.-butanol contained in the decomposed products of one mole of said organic peroxide, which are generated at a curing temperature, is 2 moles or less, and wherein the contribution of secondary curing to a compression set defined by the following formula is 30 % or less:

$$\underline{((CS_1 - CS_2)/CS_2) \times 100\%}$$

in which CS₁ is the compression set of a product from primary curing for 10 minutes at 160°C and CS₂ is the compression set of a product from secondary curing for 4 hours at 180°C.

7. (Amended) A curing composition of a fluororubber comprising 100 parts by weight of a fluororubber which is curable with an organic peroxide,

0.1 to 10 parts by weight of a polyfunctional unsaturated compound, and

0.3 to 1.2 parts by weight of an organic peroxide,
wherein the total amount of acetone and tert.-butanol
contained in the decomposed products of one mole of said organic
peroxide, which are generated at a curing temperature, is 2 moles
or less, and the contribution of secondary curing to compression
set defined by the following formula is 30% or less:

$$((CS_1-CS_2)/CS_2) \times 100\%$$

in which CS_1 is the compression set of a product from primary
curing for 10 minutes at 160°C , and CS_2 is the compression set of a
product from secondary curing for 4 hours at 180°C , when said
curing composition is cured to obtain a molded article.